

Lesson Plan

Puzzling Project

Summary

Students create a stop motion animation in which a puzzle puts itself together and then takes itself apart. This is a good starter project for stop-motion animation as it's very structured and forces kids to take at least one picture for each puzzle piece (200 - 300 shots).

- Grades: 5-8
- Communicate information and ideas effectively to multiple audiences using a variety of media and formats. **(ISTE standards: communication and collaboration)**
- Create original works as a means of personal or group expression. **(ISTE standards: creativity and innovation)**
- Time: 90 minutes

Teaching Plan

Learning Context

Show students examples of animated puzzles from the [STEMbits website](#). Discuss the following questions:

- How do you think the puzzle animations were created?
- What are some of the differences in how the puzzles were put together or taken apart?

Procedures

- Have students work in pairs and give each pair a jigsaw puzzle (it's best to limit the puzzles to 100 to 150 pieces for the sake of time). Students should put together the puzzle first on cardboard or an art board. While students put together the puzzles you can show small groups of students how to use the cameras and tripods. If you have more than one class period to complete the project, make sure to have a place to store the puzzles.
- Once all the puzzles are complete, help students set up their tripod and camera so that the entire puzzle fits within the camera frame. If you don't have tripods, help students

determine the best position to hold the camera to fit the puzzle in the camera frame.

Once this is set, students should leave the tripod in the same position or hold the camera in the same spot for all the shots.

- Have students slide their puzzle off the cardboard or art board, which will serve as the background.
- A pair of students will work together to take the pictures for the animation. One student will take pictures while the other student takes a piece from the completed puzzle and places it on the background. It's important that students communicate with each other as they place pieces to avoid getting hands in the shots. Students need to take at least one picture per puzzle piece they put in or remove. Encourage students to be creative in how they put the puzzle together. They can rotate pieces or put the puzzle together in patterns, for example.
- Once the puzzle is put together, students should switch roles and take the puzzle apart one piece at a time while taking pictures. As they take the puzzle apart, they should place the pieces back in the puzzle bag.
- After taking all of the pictures, students use a video editor or Google Slides to put the animation together (see resources).

Materials

- Easy jigsaw puzzles (100-150 pieces). The puzzles don't need to be expensive but be careful about choosing puzzles with really small pieces. The best puzzles I've found for this are \$1 puzzles from The Dollar Tree.
- Video or still camera
- Cardboard or art board for backgrounds. (This is also helpful if you need more than one class to do the project as you can stack the puzzles on top of each other)
- Tripod (optional)
- Video editing software or Google Slides

Resources

[Creating animation using Google Slides](#)

Using Premiere Elements to create stop-motion animation

Creating stop motion using Google Animation

[Puzzle animation examples](#)

